

SEP 12 2007

Amendment Dated September 12, 2007
Serial No. 09/740,052

IN THE CLAIMS

Claim 1. (Currently Amended) A method for a Virtual Private Network (VPN) server that handles packets that will flow over a remote link and manages bandwidth of a the remote link, the method comprising the steps of comprising:

assigning, by the VPN server, a portion of the bandwidth of the remote link to at least one application group; and

metering, by the VPN server, packets belonging to the application group; and

wherein the VPN server is configured to at least one of authenticate, encapsulate, and de-encapsulate authenticating and/or encapsulating at least a portion of the packets belonging to the application group by the VPN server.

Claim 2. Canceled

Claim 3. (Currently Amended) The method of claim 1, A method for a Virtual Private Network (VPN) server that manages bandwidth of a remote link, comprising:

assigning by the VPN server a portion of the bandwidth to at least one application group; and

metering by the VPN server packets belonging to the application group;

wherein the VPN server is directly connected to other links having larger bandwidths than the available bandwidth of the remote link; and wherein the VPN server is configured to at least one of authenticate, encapsulate, and de-encapsulates at least a portion of the packets.

Claim 4. (Currently Amended) The method of claim 1, wherein the packets belonging to the application group share a pre-defined configuration.

Claim 5. (Currently Amended) The method of claim 1, A method for a Virtual Private Network (VPN) server that manages bandwidth of a remote link, comprising:

assigning by the VPN server a portion of the bandwidth to at least one application group; and

metering by the VPN server packets belonging to the application group;

Amendment Dated September 12, 2007
Serial No. 09/740,052

wherein the packets belonging to the application group contend equally for the portion of the bandwidth; ~~and wherein the VPN server is configured to at least one of authenticate, encapsulate, and de-encapsulate at least a portion of the packets.~~

Claim 6. (Currently Amended) The method of claim 1, wherein the step of metering the packets group further includes metering a flow rate of the packets going through the server in either direction.

Claim 7. (Currently Amended) The method of claim 6, wherein the step of metering the packets further includes rejecting the packets if the flow rate exceeds the portion of the assigned bandwidth.

Claim 8. (Currently Amended) The method of claim 1, further comprising the step of: A method for a Virtual Private Network (VPN) server that manages bandwidth of a remote link, comprising:

~~assigning by the VPN server a portion of the bandwidth to at least one application group; metering by the VPN server packets belonging to the application group; and allowing a user to specify the bandwidth of the remote link from a user interface; wherein the VPN server is configured to at least one of authenticate, encapsulate, and de-encapsulate at least a portion of the packets.~~

Claim 9. (Currently Amended) The method of claim 1, further comprising the step of: A method for a Virtual Private Network (VPN) server that manages bandwidth of a remote link, comprising:

~~assigning by the VPN server a portion of the bandwidth to at least one application group; metering by the VPN server packets belonging to the application group; and allowing a user to specify the portion of the assigned bandwidth from a user interface; wherein the VPN server is configured to at least one of authenticate, encapsulate, and de-encapsulate at least a portion of the packets.~~

Amendment Dated September 12, 2007
Serial No. 09/740,052

Claim 10. (Currently Amended) A system for managing bandwidth of a the remote link by metering packets that will flow over the remote link, comprising:

a Virtual Private Network (VPN) server that authenticates and/or encapsulates at least a portion of the packets handled by the system that will flow over the remote link; and

a contention pool having a portion of the bandwidth for at least one application group; and

a meter associated with the VPN server that meters for metering the packets that will flow over the remote link to implement a contention pool having a portion of the bandwidth of the remote link assigned to an belonging to the application group;

wherein the server is a VPN server is configured to at least one of authenticate, encapsulate, and de-encapsulates at least a portion of the packets.

Claim 11. Canceled

Claim 12. (Currently Amended) The system of claim 10, A system for managing bandwidth of a remote link comprising:

a Virtual Private Network (VPN) server;

a contention pool having a portion of the bandwidth for at least one application group; and

a meter associated with the VPN server for metering packets belonging to the application group by the VPN server;

wherein the VPN server is directly connected to other links having larger bandwidths than the available bandwidth of the remote link; and wherein the VPN server is configured to at least one of authenticate, encapsulate, and de-encapsulate at least a portion of the packets.

Claim 13. (Currently Amended) The system of claim 10, wherein the packets belonging to the application group share a pre-defined configuration.

Claim 14. (Currently Amended) The system of claim 10, A system for managing bandwidth of a remote link comprising:

a Virtual Private Network (VPN) server;

Amendment Dated September 12, 2007
Serial No. 09/740,052

— ~~a contention pool having a portion of the bandwidth for at least one application group;~~
and

— ~~a meter associated with the VPN server for metering packets belonging to the application group by the VPN server;~~

wherein the packets belonging to the application group contend equally for the contention pool; and wherein the VPN server is configured to at least one of authenticate, encapsulate, and de-encapsulate at least a portion of the packets.

Claim 15. (Currently Amended) The system of claim 10, wherein the meter further meters a flow rate of the packets going through the server in either direction.

Claim 16. (Currently Amended) The system of claim 15, wherein the meter further rejects the packets if the flow rate exceeds the assigned portion of the bandwidth.

Claim 17. (Currently Amended) The system of claim 10, further comprising: A system for managing bandwidth of a remote link comprising:

a Virtual Private Network (VPN) server;

— ~~a contention pool having a portion of the bandwidth for at least one application group;~~
and

— ~~a meter associated with the VPN server for metering packets belonging to the application group by the VPN server; and~~

a user interface that allows a user to specify the bandwidth of the link;

wherein the VPN server is configured to at least one of authenticate, encapsulate, and de-encapsulate at least a portion of the packets.

Claim 18. (Currently Amended) The system of claim 10, further comprising: A system for managing bandwidth of a remote link comprising:

a Virtual Private Network (VPN) server;

— ~~a contention pool having a portion of the bandwidth for at least one application group;~~
and

Amendment Dated September 12, 2007

Serial No. 09/740,052

~~— a meter associated with the VPN server for metering packets belonging to the application group by the VPN server; and~~

~~a user interface that allows a user to specify the assigned portion of the bandwidth;~~

~~wherein the VPN server is configured to at least one of authenticate, encapsulate, and de-encapsulate at least a portion of the packets.~~